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Clinical Course in Ulcerative Colitis: Analysis of the Factors Affecting the Clinical Courses during the First Year, and the Changes of the Clinical Courses during 5 Years

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Background/Aims: Previous reports on ulcerative colitis in Korea were mostly about clinical features at the time of diagnosis. In this study, we analyzed not only clinical features of Korean patients with ulcerative colitis at the time of diagnosis, but also clinical courses during 5 years after diagnosis. **Methods:** The yearly sum of monthly symptom scores (annual disease burden index, ADBI), annual symptomatic period, and clinical severity were evaluated during 5 years after diagnosis, and factors affecting the clinical courses during first year were also analyzed. **Results:** The averages of ADBI, symptomatic period, and the proportion of patients in remission during the first follow-up year were 5.8 ± 4.4 , 4.0 ± 3.1 months, and 22.1%. Those were 3.7 ± 4.1 , 3.0 ± 3.4 months, and 32.4%, during the fifth year. The average of ADBI during the second year was significantly higher in patients with high ADBI (>4) during the first year compared with that in patients with low ADBI (6.3 ± 5.5 vs. 2.6 ± 3.8 , $p < 0.01$). **Conclusions:** From these results, we can conclude that the clinical course of ulcerative colitis, assessed by ADBI and symptomatic period, tends to improve with time and the preceding clinical course is significantly correlated to subsequent course. (**Korean J Gastroenterol 2001;38: 169-176**)

Key Words: Ulcerative colitis, Clinical course, Annual disease burden index

가 10 3-15 , 50-80 , 2,3 70% 4-8 , 25 90% 가 10 60%, 20 70%가 6 5-10% , 5 1%, 25 0.1%

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Langholz⁶

(4)

2.

198

가 . 가

가

가 2

0 , 1 , 2 ,

가 5 ,

3 1 (annual

가 70-80%

disease burden index, ADBI)

^{4,9}

50

가 .

가

^{9,10}

1970

가

¹¹ 1980

¹²⁻¹⁵

가

(Table 1).

5

(proctitis), S

Table 1. Clinical Factors Used as Variables for Analysis

Demography

Sex

Age at the time of onset of symptom

Age at the time of diagnosis

Social history

Birth area, growth area, resident area, marriage status, education, occupation, religion, economic status, smoking, drinking, oral pill ingestion

Systemic symptom

Fever, weight loss

Period from onset of symptom to diagnosis

Extent of disease at the time of diagnosis

Endoscopic severity at the time of diagnosis

Clinical severity at the time of diagnosis

Laboratory finding

ANCA (anti-neutrophil cytoplasmic antibody)

ESR

CRP

1.

1988 1 2000 8

198

(1) / /

, (2) /

(granular) (friable)

, (3) /

, (spiculated),

Table 2. Truelove & Witts's Clinical Severity¹⁶

	Severity	
	Mild	Severe
Diarrhea	Four or less/day	Six or more/day
Bloody stool	Small amount	Large amount
Temperature	Normal	More than 37.5
Pulse rate	Normal	More than 90/min
Hemoglobin	Normal	75% or less
ESR	Normal	More than 30 mm/hr

Moderate severity is clinical severity between mild and severe.

(left-sided colitis), 20 가 가 , 40 가 가 (bimodality)

(extensive colitis) (Fig. 1).

Truelove Witts¹⁶ 가 가 4 (2.0%)

가 3 2)

Truelove Witts 147 94.6% 89.0%가 (85.9%), (84.2%), (83.0%), (69.4%), (64.6%), (64.0%), (58.2%), (38.9%)

3.

SPSS (version 9.0) 95% 20.4 ± 28.9 (1 156) , 66.7 ± 45.3 (3 245) 46.3 ± 37.3 (2 244)

chi square test

t-test one-way ANOVA test 5

t test Pearson

1.

1) 198 88 , 110 , 40.1 ± 16.0 , 15 97 . 30

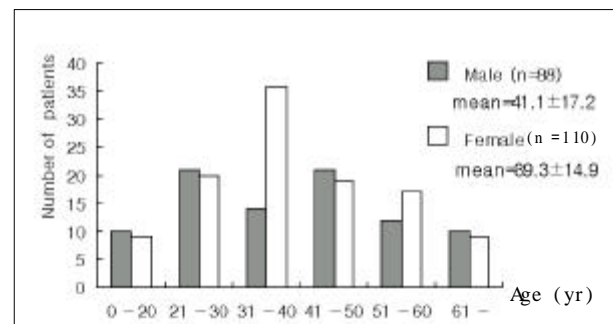


Fig. 1. Age and sex distribution at diagnosis. In female patients, fourth decade shows the highest frequency of prevalence, and in male patients, showing bimodal frequency, third and fifth decades reveal the highest frequency.

3)

187 45 24.1%, 52 27.8% 30 26.9%, 25.0%, 48.1% 31 57%, 20.0% 30 (p<0.05).

가

4)

가가 가 187 49 26.2%, 82 43.9%, 56 29.9% 30.0%, 50.0%, 20.0% 23.4%, 39.3%, 37.4% (p<0.05).

가

5)

가가 가 182 36.4%가 23.9%, 18.0% 22.7% 30.7%, 36.0%가 가 (Fig. 2, p<0.05).

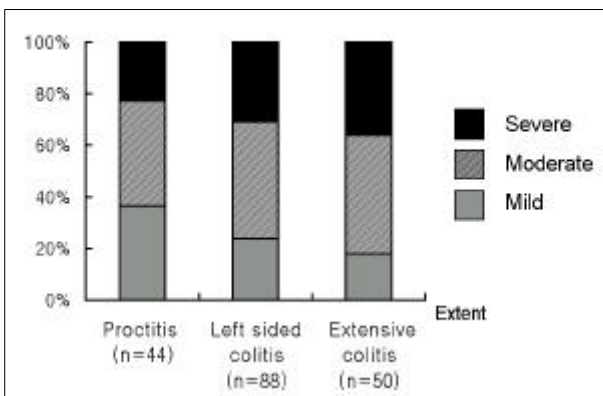


Fig. 2. Clinical severity according to the extent of disease at diagnosis. The patients who had more extended lesion had more severe symptoms.

2.

12 가 95 5.8±4.4(1 22) 4.0±3.1 (1 12 가 21 (22.1%) 7.1±4.8 4.8±3.4 4.6±3.1 3.2±2.4 가 (p<0.05).

3.

가 2 가 63 4 가 (>4, n=28) 6.3±5.5 가 (4, n=35) 2.6±3.8 (p<0.01). Pearson 0.58 (Fig. 3, p<0.01).

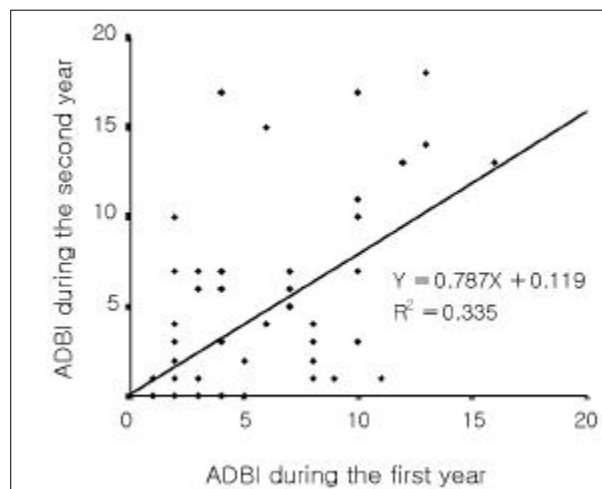


Fig. 3. Correlation between annual disease burden index (ADBI) during the first year and ADBI during the second year. The ADBI during the second year was significantly higher in patients with high ADBI during the first year.

4. 5
1) , 2 , 3 , 4 , 5
5.8±4.4, 4.7±4.9, 4.9±5.3, 3.7±4.4, 3.7±4.1
가 , 4
, 5
(Fig. 4, p<0.05).

2) , 2 , 3 , 4 , 5
4.0±3.1, 3.7±3.7, 3.8±3.8, 3.1±3.4, 3.0±3.4
가 ,
5
(Fig. 5, p<0.05).

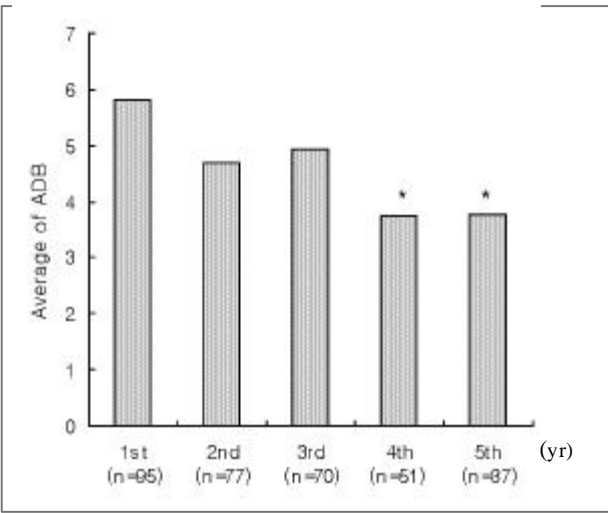


Fig. 4. Changes in the average of annual disease burden index (ADBI) during 5 years from diagnosis. The averages of ADBI during the fourth and fifth year were significantly lower than that of the first year. * p<0.05 compared with the first year.

3) (가)
, 2 , 3 , 4 , 5
22.1%, 24.7%, 22.9%, 31.4%, 32.4% 가
,
17.9%, 9.1%, 14.3%, 5.9%, 8.1% 가
(Fig. 6).

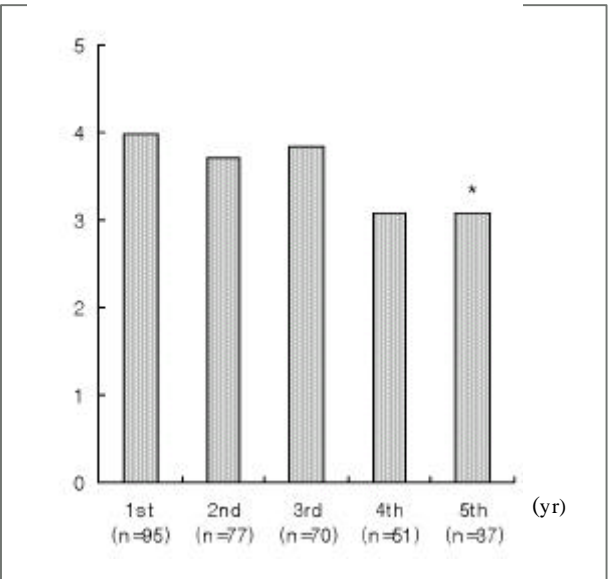


Fig. 5. Changes in the average of annual symptomatic period during 5 years from diagnosis. The average of symptomatic period during the fifth year was significantly lower than that of the first year. * p<0.05 compared with the first year.

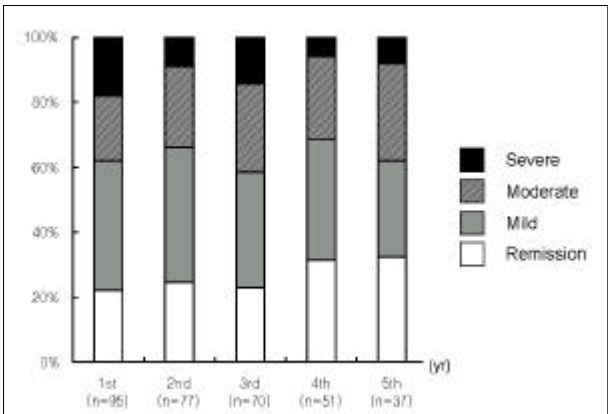


Fig. 6. Changes in clinical severity during 5 years from diagnosis. The proportion of patients in remission tended to increase and that with severe symptom tended to decrease with time during the 5 years.

) , (55-60) 가 ⁶ .
 (bimodality) ^{2,3} 가 가
 가 1:1.25 가 , 가 가
 가 . 가
²² .
 가 29.1%, 가 70.9%
 가 . 10-20% ,
 가 가 ² 가 가
 가 4 (2.0%) . , ,
 1984 7.7%¹², 1990 15.0%¹³, 1992 17.9%¹⁴ , , , , , , ,
 , 24.1% , , ,
 가 , 가 .
 26-48%⁸ Langholz⁶ 2
 가 5 , 가 70-80%
 ,
¹⁹ .
 30 48.1%, 31
 20.0% 가 가
 50%, 10 60%, 20
 70%가 , 5-10%
 ,
 5 1%, 25
 0.1% . 가
 가 가
^{19,20} ,
 가 가 Truelove Witts가 가
 가 .
 Truelove Witts (Table 2)¹⁶ 가 가
 , , ,
 30.0%, 50.0%, 가
 20.0% 23.4%, 가
 39.3%, 37.4% 가 15-40% 가 ,
 , 가 3-10%
 .
 가 가 ,
^{14,19,21} . 가
 가 ^{4,23-28} 4
 , 3
 1
 , , , , ,
 , , , , ,
 1980 ,
 가

1990

가

198

가 . 가
0 , 1 , 2 , 3
1
가
, 5 가
24.1%, 48.1%,
27.8% , 30
가
26.2%, 43.9%, 29.9% ,
가 가
가 5.8±4.4
4.0±3.1 , 가
22.1% .
가 가

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